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Relationship Contracting: The South Australian Experience- A Case Study

Jian Zuo (School of Natural and Built Environments, University of South Australia, Adelaide, Australia)

Georg Zillante (School of Natural and Built Environments, University of South Australia, Adelaide, Australia)

ABSTRACT

The construction industry has long been accused of poor performance. The confrontational attitude of its members and the resultant adversarial atmosphere has been identified as a major factor responsible for this poor performance. A cultural change is required to remove these barriers and to promote optimum project outcomes. Relationship contracting is promoted as a way to support the shift from the adversarial culture to the co-operative and collaborative culture within the industry and the project team.

The Adelaide Convention Centre Extensions project was the first in South Australia to be procure under the principles of relationship contracting. Using the case study approach, this paper reviews the form of relationship contracting used in this milestone project. The paper documents the lessons learned from this project and makes recommendations that can lead to improvements for future projects.

Keywords: Relationship contracting, South Australia, win-win approach, best-for-the-project

RELATIONSHIP CONTRACTING – TARGETING THE CULTURAL SHIFT

The public image of the construction industry is generally poor. It has long been notorious for its poor performance and confrontational disputes. Construction projects are usually procured by competitive tendering. This competitive approach, the different objectives of the contracting parties and the practice of improper risk allocation, has often resulted in the creation of an adversarial relationship. The need for process improvement and cultural shifts has been advocated as a means of improving the effectiveness and competitiveness of the construction industry (APCC 1997, RCBCI 2002, Latham 1994, Egan

1998) and relationship contracting is often recommended to support this cultural shift. By fostering collaborative relationships between project participants, relationship contracting has become the most popular procurement approach in the public sector over recent years.

The term *Relationship Contracting* is used to illustrate delivery systems that concentrate on relationships between participating parties in a construction contract, rather than just on the project-specific requirements i.e. achieving the objectives of the contract (Quick 2002). In relationship contracts there is a formal expression of the relationship between participating parties.

The Australian Constructors Association (ACA), a group whose member companies are all leading construction industry organisations, defines *Relationship Contracting* as:

"..a process to establish and manage the relationships between the parties that aims to: remove barriers; encourage maximum contribution; and allow all parties to achieve success." (Australian Constructors Association. 1999, p.4)

From the above definition, it can be discerned that the most important element of relationship contracting, as the name suggests, is the relationship between the parties involved in the project. Reasons to develop and sustain a good relationship between the participating parties include: (a) to remove the barriers (to outstanding outcomes) that exist in a conventional contract and (b) to encourage maximum commitment and contribution from all parties and individuals. The most important facet of relationship contracting is to enable (or at least aim to enable) all parties to achieve success. Such a 'win-win' approach is achieved by the alignment of the objectives of parties (individuals) and gainshare/painshare

mechanisms. This is a significant departure from the traditional 'win-lose' scenario.

A relationship contract could be any contract that seeks to emphasise the relationship between the parties in order to achieve optimal outcomes for the job to be done (Quick 2002). There are two kinds of relationship contracts that are currently popular within the industry, viz, alliancing and partnering (Rawlinson & Cheung 2004; Ross 2001). Alliancing, where the parties form a cohesive entity, is characterised by all parties jointly sharing the risk and reward. This gainshare/painshare scheme is the key difference from partnering, where the parties still retain independence and may individually suffer or gain from the relationship (Walker et al. 2002).

Although alliancing has been applied in the Australian industry for more than ten years, all those projects have been of a complex engineering nature rather than building/construction projects. The National Museum of Australia (the Acton Peninsula Alliance) was the first building project in the world to employ alliance contracting. This project was identified as a successful alliancing project by the Australian National Audit Office for its excellent achievements in relation to budget, time, quality, design integrity, and risk management etc (Australia National Audit Office 2001).

THE PROJECT- THE ADELAIDE CONVENTION CENTRE EXTENSIONS

In South Australia, the Adelaide Convention Centre Extensions project was the first to be procured under the principles of relationship contracting (DAIS 2001).

Being established in 1987 as the first dedicated convention venue in Australia, the Adelaide Convention Centre was complemented by the development of the Exhibition Hall in 1990. The Adelaide Convention Centre plays a critical role in the development of the convention, exhibition

and meetings market in South Australia and is a vital contributor to South Australia's \$2.7 billion tourism industry (The Public Works Committee 1999a). This industry has continued to grow and is currently (2005) worth just under \$3.7 billion (The Advertiser 4/11/05 p28).

Conventions have been growing in size and increased exhibition space and banquet space was needed to support the existing conference facilities and provide more flexibility in operation. Expansion was essential to attract new business and, to maintain its position as one of the top 10 convention centres in the world outside the United States (The Public Works Committee 1999a).

The project scope included:

- Plaza level
 - o 7,200m² exhibition and banquet halls
 - o 1,800m² of lobby and pre-function space
 - o Services storage and support spaces
 - o Western loading dock area

- Terrace level
 - o 3 banquet rooms
 - o 110 seat bistro
 - o New kitchen and support areas

As a large construction project, The Adelaide Convention Centre Extension project involved significant risks. The project had a very strict target completion date and budget and was to be built over an operating railway station. In order to better handle these risks, the form of relationship contracting adopted was chosen with the view to selecting the contractor best qualified to deliver the project and to achieve optimum outcomes.



Figure 1: Progress of the ACC EXT-over the track of the railway
 Courtesy of Mr. Paul Schlosser; Baulderstone and Hornibrook

RESEARCH PROCESS

This research employed a case study approach to review South Australia's experience with the application of relationship contracting in the construction industry. As the first project to be procured using this alternative approach, the Adelaide Convention Centre Extensions project made for an ideal case study.

Six project participants were interviewed. They were from the key participating parties namely: the government agency, the project management consultant, the collaborative consultant, the managing contractor, the architect and the engineering consultant. They were chosen because (1) they had significant involvement with the project; (2) they were available when this research was conducted; and (3) the multi-source of information improves the reliability of the research.

They were asked to comment on their experience with the relationship contracting approach used on the project. Specifically, they were asked about the benefits and the problems of relationship contracting.

After the interview process, some project documents were evaluated in order to confirm the statements made by the interviewees. These documents included:

- Tendering documents
- High performance team building workshop reports
- Project completion workshop report

The research findings are reported in the following sections.

THE STRUCTURE OF THE PROJECT ORGANIZATION

The organization structure was established with an Integrated Management Team (IMT), a Project Control Group (PCG), and a Site group (see Figure 2).

The Integrated Management Team was responsible for:

- decision making in regard to matters that impacted on the project, including the collaborative relationship;
- providing advice to the Principal;
- ensuring corporate management support; and
- ensuring adequate resources were provided.

The IMT comprised senior executives of the client, end user, purchaser and risk manager (DAIS), project manager, primary consultant architect, cost manager and managing contractor (see Figure 3).

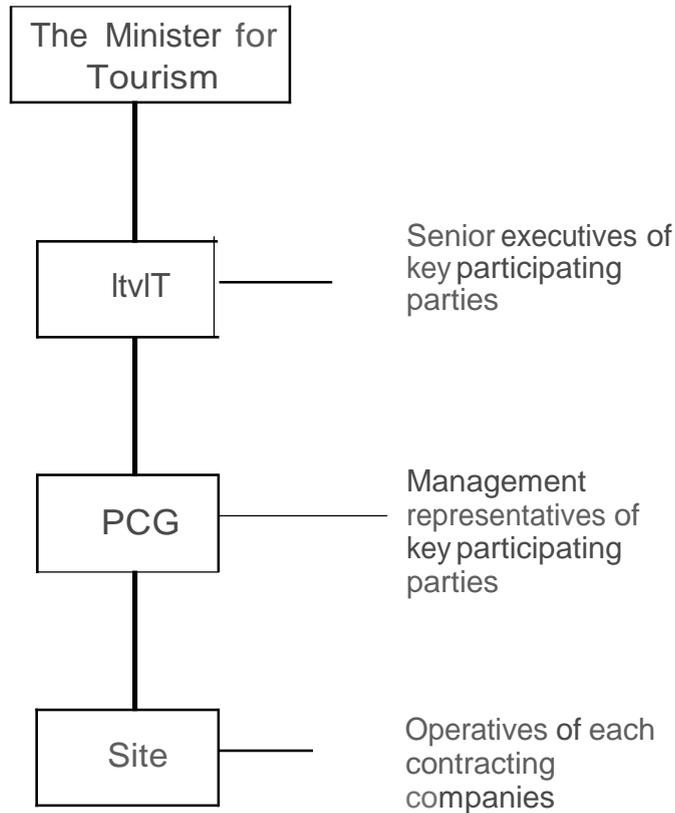


Figure 2: The structure of the project organization

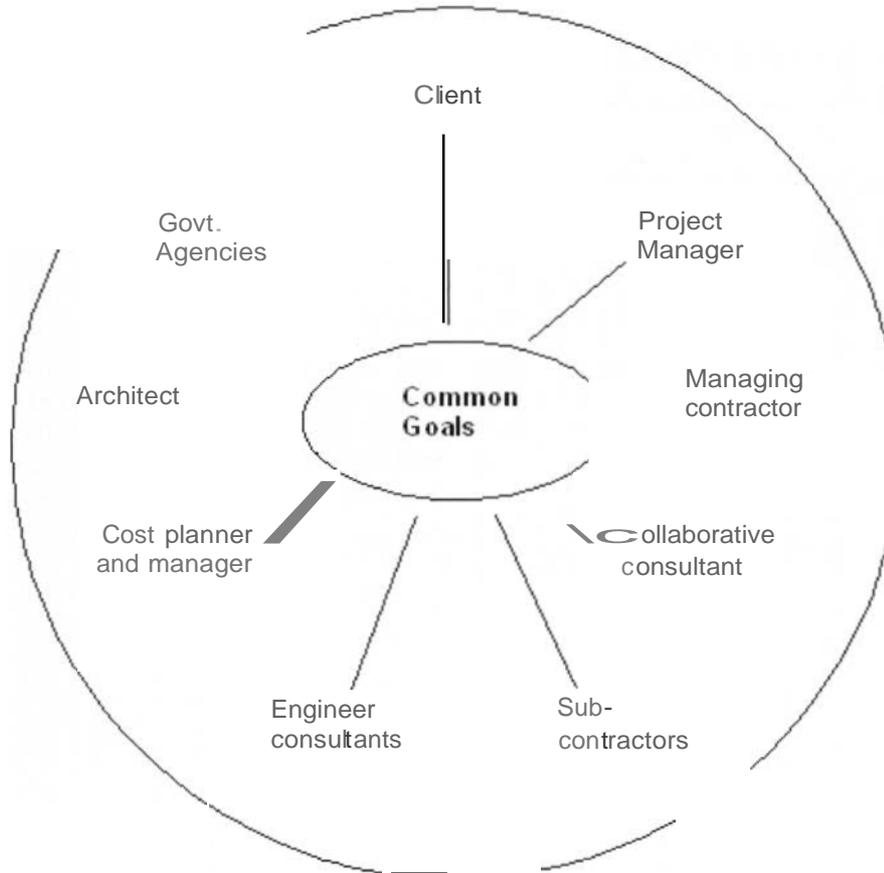


Figure 3: The structure of the Integrated Management Team

Reporting to the IMT was the Project Control Group (PCG) comprising management representatives of the same organizations. The PCG was responsible for the day-to-day management of the project.

risks and have common goals as objectives for the project which they work very hard to achieve.

THE COLLABORATIVE CONTRACT

The Site group was composed of operatives from each of the contracting companies.

A true alliance usually starts with no contract, no consultants and no appointments. Subsequently, a contractor and all consultants are appointed in one hit. This 'true' alliance contracting is at the 'top end of the spectrum' of the relationship contracting (Ross 2001).

Traditionally, a hierarchical organizational structure is used for construction projects. In such arrangements, one party, usually the client sits on the top of the structure and dominates the process. In the ACC EXT project, a non-hierarchical structure was established from the beginning of the project with all participating parties having an equal role. Under this system no party can dominate the team and all parties work together under the principles of relationship contracting. Similarly, all parties share ownership of the project outcomes by taking part in the decision making process. They share profits and

Unlike the National Museum of Australia project, this project is not a true alliance. It started with a set of contract conditions and with the consultants already employed under different arrangements. All consultant appointments involved an open call for registrations of interest, from which a selection of short-listed companies was invited to submit a services and fee offer for the works and the most suitable consultants were selected (The Public Works Committee 1999b).

These consultants subsequently became members of the selection panel used to choose the managing contractor and the sub-contractors.

The potential contractors were asked to submit documents to illustrate how they satisfied the pre-qualification requirements, which required contractors to meet a set of benchmarks under the following criteria (The Public Works Committee 1999b):

- technical capability
- financial capacity
- quality assurance
- human resource management
- OH&S
- skills formation
- industry initiative

They were also required to illustrate their capabilities to cooperate with other project team members. Innovative tendering process, including interviews and workshops were conducted in this project.

The differences between the traditional lump sum contract and the collaborative contract adopted in this project (illustrated in Table 1) were deduced from the interviews and the project documents.

All six interviewees stressed that best-for-project participants were selected via this approach.

"... each party had the appropriate expertise and skills to work out the allocated tasks. Furthermore, all participants were willing to help each other during the project process and were prepared to shift their individual objectives/interests to focus on common goal."

"... there is a high level of trust across the project team... All parties committed themselves towards achieving optimum project outcomes."

The DAIS report also supports this view.

"The project team is unanimous in its assessment that the collaborative approach contributed to these successes" (DAIS report, 2001).

Selection of suitable partners is very important for the success of relationship contracting projects (Walker and Hampson 2003). Partner selection is encompassed with relationship development (Davis, 2004). During the selection process, the purpose of the relationship is defined, boundaries are established and value is created and maintained. Other relationship development exercises include agreement of ground rules, knowledge transfer, common goal attainment and all these lead to increased trust (Davis, 2006).

This selection process and the set of selection criteria used in ACC EXT project are quite similar with those adopted in the world-first alliancing building project – The National Museum of Australia. The study of the collaborative process used in the National Museum of Australia project revealed that the principles of Alliancing and the selection process facilitate high level of trust and high level of commitments from all parties (Walker and Hampson 2003).

PROJECT OUTCOMES

The extension project has achieved excellent outcomes. It was awarded the best project in the category – 'Commercial Industrial building over \$10 million' by the Australian Institute of Building (AIB). The judges' comments include:

"The Adelaide Convention Centre is an outstanding example of commercial building."

"The complex architectural and structural design of this huge addition to the Riverbank Precinct called for innovation in construction and excellence in management of a very large workforce."

"The builder was required to work alongside the operating Adelaide Convention Centre, Hyatt Hotel, Adelaide Festival Centre and over the Adelaide Railway Station tracks. This created a multitude of operational and

¹The detailed information about the contractor tendering process in the collaborative contract will be introduced in another paper.

environmental challenges all of which were successful overcome."

"(The managing contractor) is justly proud of its collaborative approach to the project which is an asset to the State and a fine example of high-quality construction and outstanding management of building project delivery".

There is a mixture of great pride and satisfaction that the objectives of implementing the collaborative contract were achieved. The risks of industrial action, environment and safety were managed to very low levels (DAIS report 2001).

The project outcomes are illustrated in Table 2.

	Traditional Lump Sum Contract	Collaborative Contract
Tendering	Decisions are made by selection panel, not involving tenderer.	Interviews and workshops are part of the selection process, which give the tenderer opportunities to show their capabilities.
	Price is the only selection criteria.	Price is one of the selection criteria but does not have the highest priority. The capability to cooperate with other project team members is given the highest priority.
Ownership	Without incentive and reward scheme; only penalties clauses are included in the contract for not achieving the project objectives.	Incentives are included in contract to reward optimum performance and encourage innovation.
	Nil accountability for final product other than producing what is documented.	Everyone makes the decision and has to be accountable for success or failure.
	All participants attempt to transfer the risks to the other party.	All participants share the risks.
	Contractor has minimal say in the decision making process.	Contractor is proactively involved in the decision making.
	Contractor is engaged solely to construct according to the documentation.	Contractor is engaged in a very early stage and could affect the design, documentation and construction of the project.

Table 1 The differences between traditional and collaborative contract
(Adopted from DAIS report 2001 and incorporated with the interview notes)

Objective	Achievements	Notes
Time	Ready for use on 31 Aug 2001 and completed 19 October 2001.	Pre-scheduled International Wine Conference held on time.
Budget	Over budget by an estimated \$7.4M or 8.7%.	Budget overrun between 10% and 30% is common for one-off iconic public projects in Australia.
Cost per square metre	\$3,635/m ² excellent value for money.	The Melbourne Exhibition Centre (\$3,511/m ²), the Glasgow Scottish Exhibition and Conference Centre (\$4,130/m ²), Sydney Convention & Exhibition Centre (\$4,214/m ²), Hong Kong Convention Centre (\$4,560/m ²)
Quality	Errors and omissions account for 85% contingency expenditure or 10% of construction value.	International standard facility achieved. High levels of re-documentation as part of savings strategy. Some re-work of construction.
Safety	6 lost time accidents.	Design for construction and operational safety achieved.
Environment	Limited design for environmental sustainability but some incremental improvement above benchmark. Environmental management plan developed, externally audited monthly, environmental awareness training implemented.	Environmental risks were managed to very low levels. For air conditioning purposes, the design incorporates a central chilled water system. This has a higher capital cost than alternative packaged air conditioning units (\$1.0m to \$1.2m) but energy consumption costs are 10-15% lower and carbon dioxide emissions are significantly less for the central system, resulting in a more economical and environmentally friendly life cycle cost for this aspect of the project.
Contractual and Workplace Relations	No disputes with the managing contractor; disputes existed with two sub-contractors; higher level of respect for stakeholder profitability.	Subcontractors acknowledge the project was a great experience. They did not have a real "carrot or stick".

Table 2 The outcomes of the Adelaide Convention Centre Extensions project, Source: DAIS report 2001

All the interviewees stressed that the collaborative contract approach was a significant contributor to these successes. They suggested that the principles of relationship contracting (in this project: collaborative contract) should be applied in future projects.

"Without doubt the collaboration contract achieved its fundamental aim – to manage and mitigate the risks, the Adelaide Convention Centre Extensions project is a showcase to the project team and the contract's success." (DAIS report, 2001)

The relevant government agency (DAIS) also documented the success of this project as:

The Relationship approach has ensured that potential claims and disputes have been worked through without a major conflict (Memo for ACC

EXT project, by Mr. Gary Dare, the construction manager of this project).

All interviewees were extremely satisfied with the relationship with other participating parties. From their perspective, all parties were willing to help each other yet did not hesitate to point out any potential issues. This 'early warning' characteristic of the project culture supplemented the collaborative culture with project participants co-operating with each other to resolve each issue as it arose during the project process. This did not, however, deter them raising questions about the design and construction process.

"These are positive signs of the internal culture of the project team... it is not good to hide any concerns... talking straight is to help rather than to challenge others..." (from interview notes)

The significant achievements of the Adelaide Convention Centre Extensions project has resulted in more major public projects in SA being procured via this alternative approach. Carr and Exton have previously described (Clients Driving Innovation International Conference 2004) the success of relationship contracting on the Lyell McEwin Health Service Redevelopment Stage A project.

LESSONS LEARNED

Although this project has achieved optimum outcomes, there are still some problems that need to be addressed for future projects that are procured using this approach. The lessons learned from this project (based on interview findings and the reports from relevant government authorities e.g. DAIS & The Public Works Committee), are illustrated as follows:

Firstly, the preferred project culture only spreads amongst the major parties in the project (main level) e.g. main contractor, primary consultant, the client. Sub-cultures that are different from this project culture exist at the sub-level e.g. sub-contractor, other consultants. For instance, one interviewee stated:

"Straight talk was achieved at the core team level.....however, sub-contractors found it very difficult to be upfront and honest and

discuss the problems encountered at the site meeting. Instead, sub-contractors preferred to show the problems to the managing contractor and to try and resolve the problem via the managing contractor."

Developing and crafting a coherent project vision helps to shift the subcultures to be more consistent with the universal project culture. The project vision encompasses three factors: vision clarity, vision support and vision stability. Each of these components is positively associated with success in certain types of innovation (Lynn 1999; Lynn and Akgun 2001).

Project participants may have a variety of motivations, aspirations and agenda which may often clash with best-for-project objectives. Christensen and Walker (2004) argue that project vision makes a significant contribution towards project success.

Developing a project vision relies on clearly defining project goals. Creating an effective project vision requires excellent communication skills and a deep understanding of each stakeholder's objectives. Accordingly there is a need to facilitate the inputs of all stakeholders to ensure that all insights are taken into account.

It is suggested that more workshops and training should be conducted to let the subcontractors become more aware of and understand the principles of collaborative contracting and how they should act under the different circumstances. This could be a part of the relationship development process, which is a core driver for a successful relationship contract (Davis, 2004).

Secondly, it is very important to have realistic project goals. As interviewees commented:

"Unrealistic project goals were detrimental to the relationship between project team members. Unrealistic project goals were responsible for the adversarial behaviours of project participants." (from interview notes)

Accordingly, it is suggested that realistic project goals and objectives be established and maintained and that they be reviewed and reset if they become unachievable.

Thirdly, the co-location of the whole project team on site is conducive to achieving effective and efficient communication. These merits were verified at the National Museum project in Canberra. In the Adelaide project, this was not achieved until later in the construction program when key representatives of the architect were co-located on site with the managing contractor. Even this partial co-location was recognized as an important contributing factor to successful completion by all interviewees. They stressed that "co-location of the design team with the construction team facilitates an integrated approach to issue resolution and identification of design and construction opportunities."

"There was an acceleration of attending to information request, of design change implementation and a wider ownership of the design changes." (DAIS 2001)

Fourthly, similar selection criteria should also be considered when appointing consultants. In this project, all consultants were already appointed before the contractors were chosen. No explicit criteria cover the collaborative capabilities of the consultants when they are engaged. It is suggested that the client should also consider this when selecting consultants. This ensures that the consultants are prepared to work in a collaborative setting. Similarly, they will be entitled to be 'qualified' selection panel members responsible to assess the collaboration and cooperation capabilities of the managing contractor and sub-contractors.

Fifthly, more resources and commitments from the client are required for the success of relationship contracting projects. Other participating parties also need to invest resources in the very early stages of the project. This will result in better profit returns because the whole project team has a better understanding of the project.

"... (the client) needs to put more upfront but less in at the end, because upfront (the clients) are doing positive things about building teams, and understanding project objectives and how (the clients) will do business, whereas in the traditional setting at the end (the clients) are fighting the claims." (The Public Works Committee 2000)

The final lesson involves the role of the project management consultant. Traditionally, the project manager manages the whole project on behalf of the client. This hierarchical structure does not seem to be compatible with the integrated team structure which is usually adopted in relationship contracting projects. It is suggested that project management consultants (project managers) need to change their roles and responsibilities in order to be more compatible with the structure of relationship contracting projects.

The number of interviewees that agreed with each learned lesson is illustrated in Figure 4.

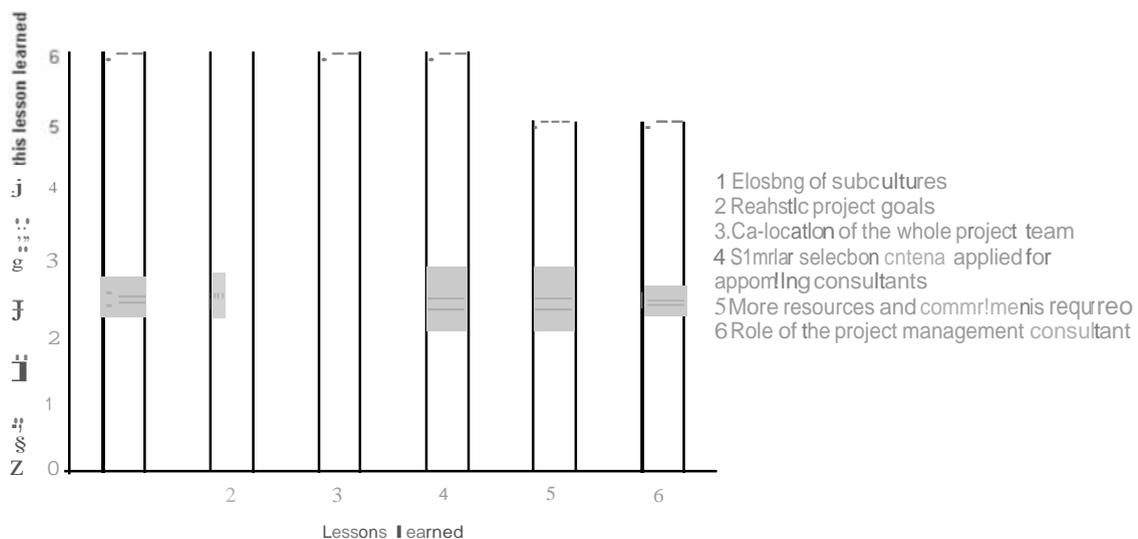


Figure 4: Lessons learned from the ACC EXT project

CONCLUSIONS

As the first project to be procured via relationship contracting in South Australia, the Adelaide Convention Centre Extensions project has achieved optimum outcomes. The facility was available for the pre-scheduled International Wine Conference on the 31st Aug 2001. The result of each project objective was generally better than the agreed benchmark. At completion there were no disputes with the managing contractor. There was a genuine involvement in design, constructability and innovation by the subcontractors. The project team was unanimous in its assessment that the collaborative contract approach was a significant contributor to these successes.

The lessons learned from this project can be applied to future projects; however there is still room for further improvement.

The research raised some issues regarding subcontractors e.g. the established project culture stopped at the subcontractor level and it was very important to choose the 'right' subcontractors. This research did not look at participants at the sub-contractor level. Future research is required to fill this gap.

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